



IEEE President's Remarks

Tom Coughlin, 2024 IEEE President & CEO

IEEE Region 8 Meeting

2 March 2024

Vienna, Austria

ieee.org



Imagine the Future of IEEE

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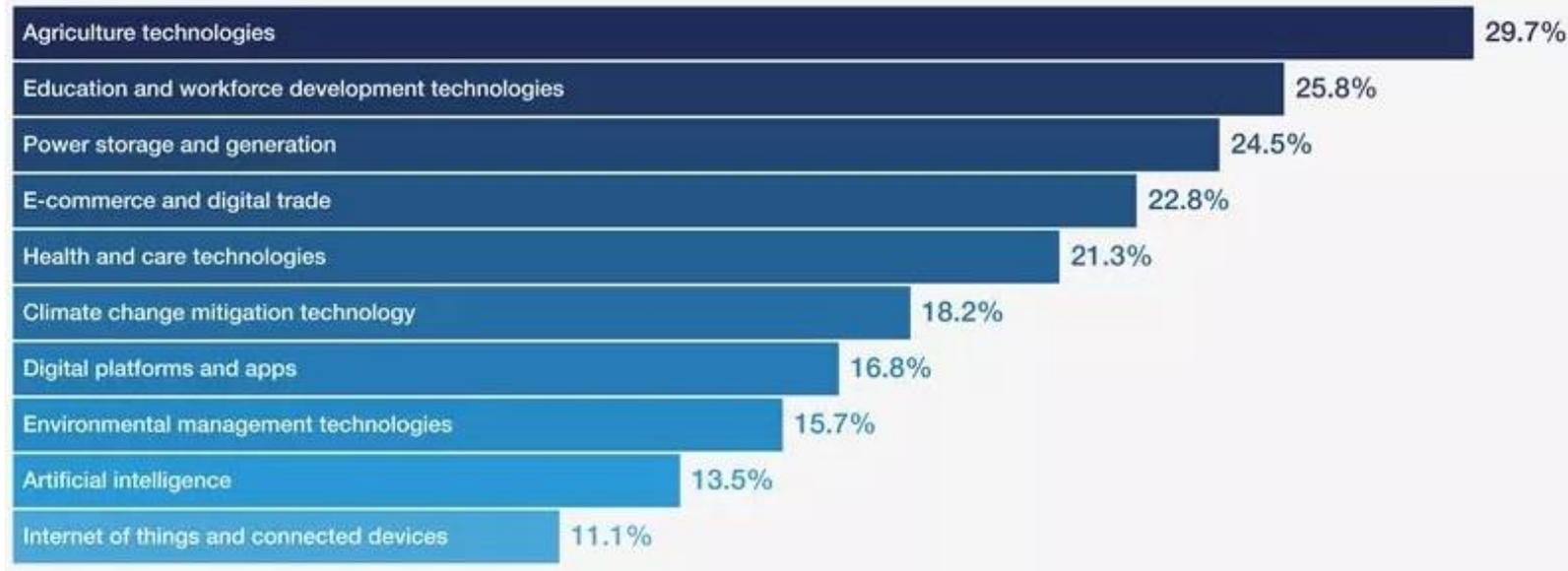
Painting by Rick Guidice, courtesy NASA.

The professional home for the engineering and technology community worldwide



Technology is Driving the World's Economic Growth

- ▶ Spending on digital technologies forecast to rise to US\$2.8 trillion globally by 2025¹.
- ▶ The IT market will grow to US\$12.4T by 2028 at a compound annual growth rate of 8.3%².
- ▶ The digital economy makes up more than 15% of the global GDP and has grown 2.5 times faster over the previous 10 years than the GDP of the physical world³.



Global Top Ten Technologies of Strategic Importance⁴

- 1) IDC FutureScope: Worldwide Digital Business 2024 Predictions
- 2) The Business Research Company's "Information Technology Global Market Report 2024"
- 3) August 2022 World Economic Forum
- 4) Markets of Tomorrow Report 2023: Turning Technologies into New Sources of Global Growth

IEEE: A Resource For Technology Decisions

- ▶ Technology of all sorts drive the world's economy
- ▶ IEEE is the largest technical professional organization in the world
- ▶ IEEE members are involved in all aspects of technology creation and use
- ▶ IEEE research powers patents and IEEE creates world's technical standards
- ▶ IEEE fosters efforts in future directions, technical roadmaps and tracking megatrends
- ▶ IEEE can inform public policy and is a resource for technical discussions



My Priorities for 2024



- ▶ Increase our retention of younger members
- ▶ Increase our engagement with industry
- ▶ Increase our outreach to the broader public
- ▶ Make investments in new products and services

Importance of Getting and Retaining YPs

- Average age of IEEE higher grade members (excluding GSMs) is 51 and it is 55 in the US.
- Overall average age member age is about 44 years due to our large student membership, mostly outside of the US.
- Annual renewal of student members to Higher Grade members from 2016 through 2021 was about 15%.
- IEEE Young Professional annual retention rates are under 60%.
- Transitioning students to YP members and retaining them is vital to keeping IEEE dynamic and relevant!



Retaining our Younger Members

- ▶ How can we retain our younger members and thus keep IEEE relevant and vital?
- ▶ I believe that an important element is creating a sense of community among IEEE members, particularly at the local section level and engaging our student and YP members.
- ▶ Many members would like to help, they are just waiting to be invited.
- ▶ IEEE can create resources to support talks to student branches and perhaps help with connections with industry with job fairs, etc.



Why Focus on Senior Member Elevation?

- Senior Members renew at much higher rate than those of “Member” or “Associate Member” grades.
- Many volunteer roles require senior membership, so this expands the pool of available volunteers.
- Working through companies helps build stronger relationships between IEEE and industry.

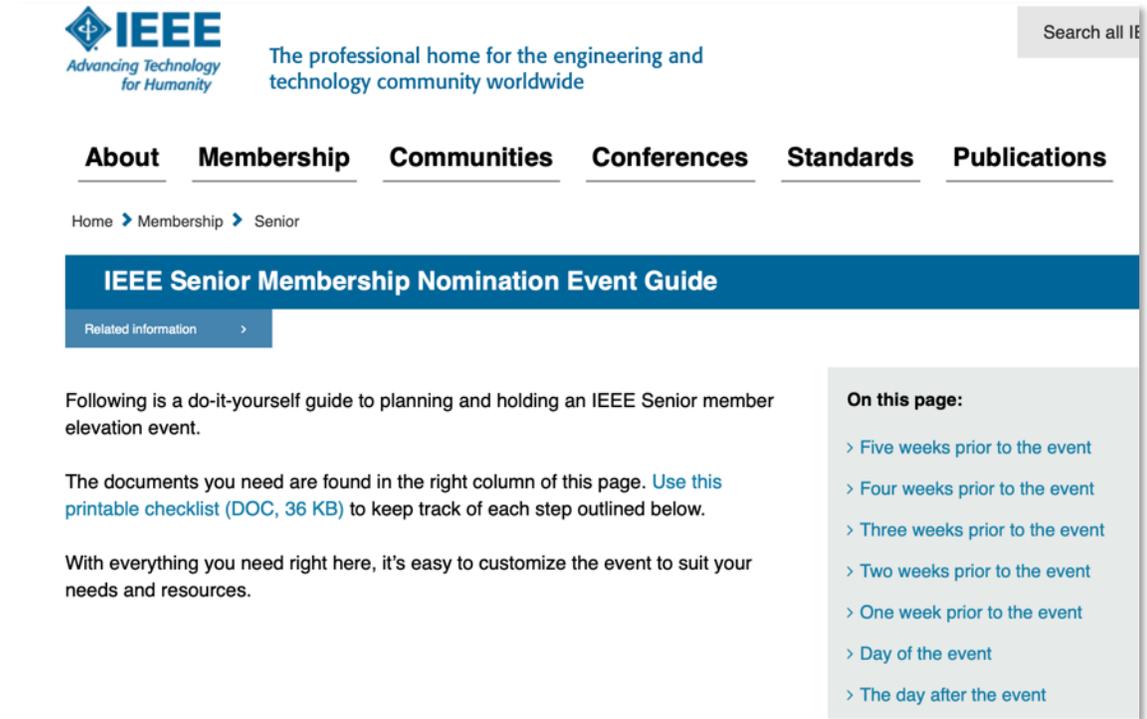


Member Retention Rates by Grade

IEEE Grade	2022 Membership Year Retention Rate
Fellow	98.1%
Honorary	100.0%
Life Fellow	93.9%
Life Member	92.1%
Life Senior Member	93.2%
Senior Member	94.3%
Member	71.9%
Associate Member	46.1%
Graduate Student Member	55.1%
Student Member	31.1%
Grand Total	69.2%

Extending the Good Work of IEEE Sections

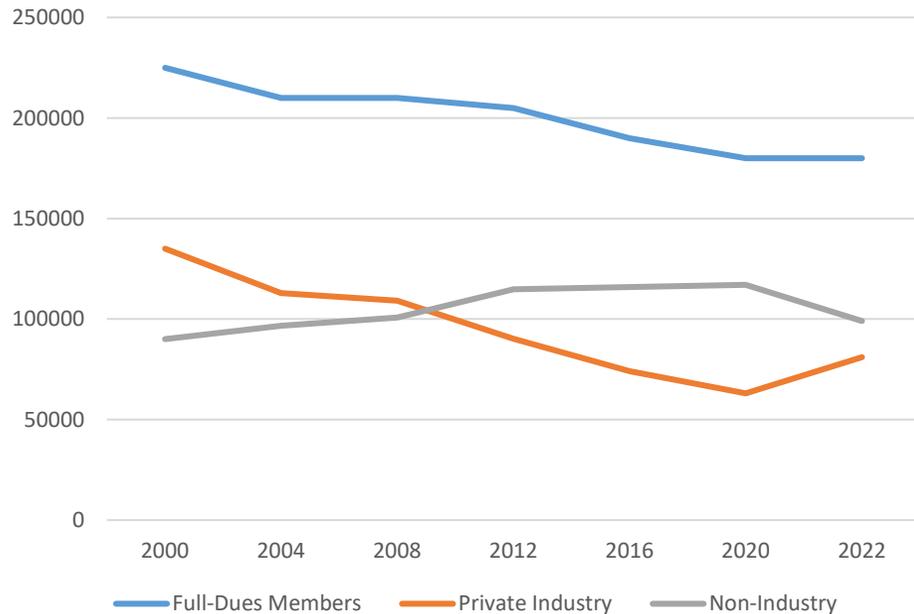
- Sections have been running Senior Member Elevation events for years.
- We're extending that to events within companies that cut across multiple Sections.
- Working with companies increases IEEE's connection with industry and provides greater value and engagement.



The screenshot shows the IEEE website's navigation menu with options: About, Membership, Communities, Conferences, Standards, and Publications. The breadcrumb trail is Home > Membership > Senior. The main heading is "IEEE Senior Membership Nomination Event Guide". Below it is a "Related information" link. The main text reads: "Following is a do-it-yourself guide to planning and holding an IEEE Senior member elevation event. The documents you need are found in the right column of this page. Use this printable checklist (DOC, 36 KB) to keep track of each step outlined below. With everything you need right here, it's easy to customize the event to suit your needs and resources." On the right side, there is a "On this page:" section with a list of links: > Five weeks prior to the event, > Four weeks prior to the event, > Three weeks prior to the event, > Two weeks prior to the event, > One week prior to the event, > Day of the event, and > The day after the event.

Declining Industry Presence

IEEE faces a significant foundational and financial threat to its mission, but also an opportunity



	2000	2004	2008	2012	2016	2020	2022
Full-dues Members	225,000	210,000	210,000	205,000	190,000	180,000	180,000
Private Industry	60%	54%	52%	44%	39%	35%	45%
Private Industry	135,000	113,400	109,200	90,200	74,100	63,000	81,000
Non-industry	90,000	96,600	100,800	114,800	115,900	117,000	99,000

Source: IEEE Research

Strengthening our Value to Industry and IEEE Members Working in Industry

- ▶ This will require work at the local level as well across IEEE Organizational Units.
- ▶ Get members from industry involved in your local section leadership.
- ▶ Work with your local companies.
- ▶ Local groups at companies
- ▶ Participate in local trade shows (exhibits, talks).
- ▶ Recognize local companies for their activities.
- ▶ Engaging with industry is an important element in retaining and attracting younger members.



Informing the Broader Public about IEEE

▶ Did you know:

- IEEE publications are cited 3x more than any other publisher in the top 50 patenting organizations worldwide.
- IEEE members have won 21 Nobel Prizes so far.
- IEEE members filed over 143,000 patents last year.
- IEEE has over 1,300 active standards with more on the way that standardize the internet, the metaverse, blockchain, sustainable and ethical design, etc.
- IEEE publishes 3 out of the top 5 publications on AI, Automation and Control Systems, and Computer Science HW and SW.

- ▶ We need to participate in opportunities to talk to non-IEEE groups about IEEE.



IEEE is My Competitive Edge

Membership Engagement through Video Outreach

- ▶ A new series of ads being created in 2024.
- ▶ Target audience is early career technology professionals, existing IEEE members, as well as the general public.
- ▶ An approved NIC grant will be used to expand IEEE's video portfolio by producing 2-3 new videos, tailoring the spots to a global audience so they can be run outside the US and scheduling ad flights in additional targeted media markets.
- ▶ In addition to their use for a larger external advertising campaign, these videos will also be available for use by IEEE organizational units, regions, sections and members for their promotional efforts.



The ads can be found here:
<https://bit.ly/ieeeusa-videos>



MEGAN CULLER

ELECTRICAL ENGINEER - IDAHO NATIONAL LABORATORY



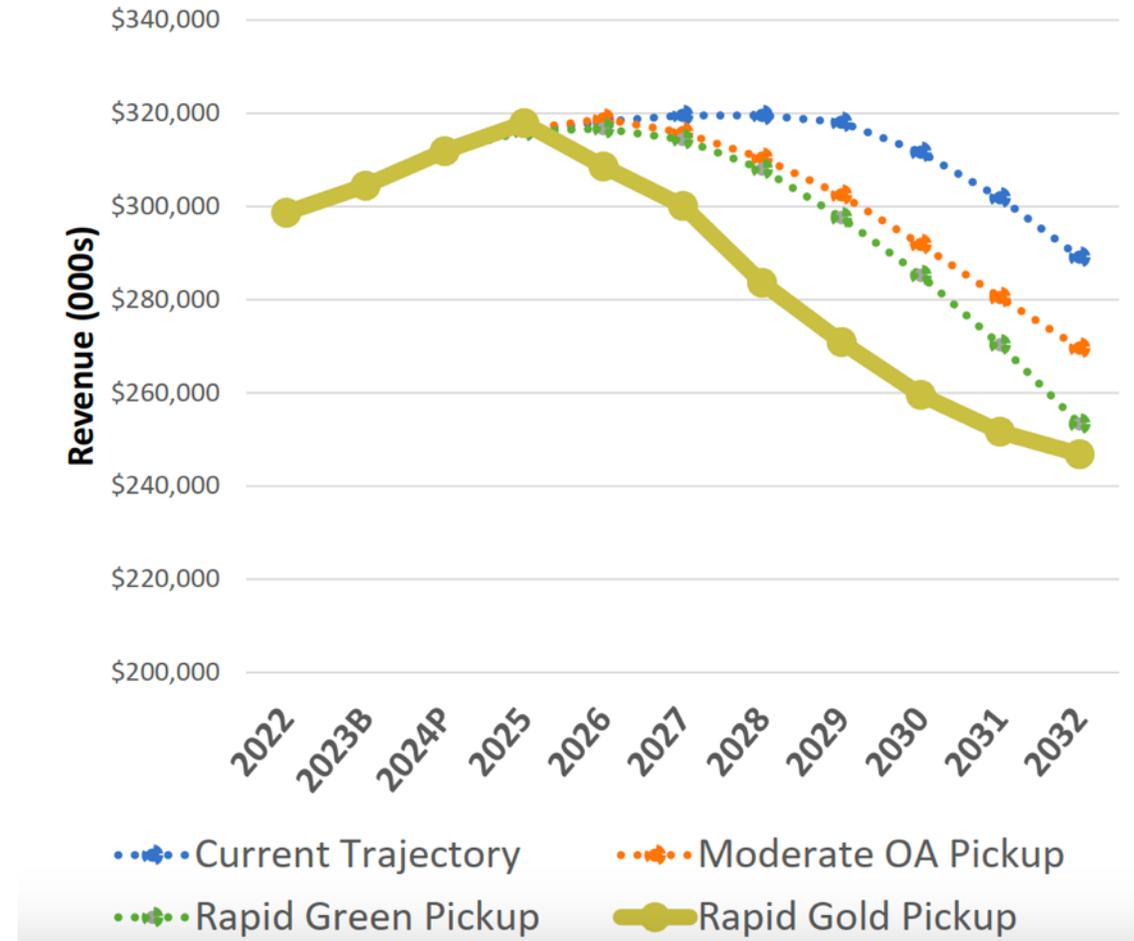
Honoring Dr. Gladys Mae West as the recipient of the 2024 IEEE President's Award



- ▶ Dr. Gladys Mae West is a mathematician whose calculations and computer programming helped construct a mathematical model of the Earth's shape.
- ▶ Dr. West's modeling directly contributed to the universal use of the global positioning system (GPS).
- ▶ She will be recognized at the 2024 IEEE Vision, Innovation, and Challenges Summit (IEEE VIC Summit) & Honors Ceremony.

Enabling Strategic Investments and Public Imperatives

- ▶ I would like to have IEEE make significant investment in the development of new products and services.
- ▶ I would like us to invest in IT and other capabilities to provide resources and services that are of value to our members and customers and enable us to continue our mission.



June 2023 PSPB Report on Impact of Open Access



IEEE Board of Directors and other OU Activities in 2024

2024 Ad hoc Committees

- Leadership Continuity and Efficiency
- Policies and Procedures for Lists Related to Disciplinary Action
- Raising the Prestige of IEEE Awards

IEEE Strategy and Alignment Committee

- Committee on Technology for a Sustainable Climate
- Continuation of IEEE in 2050
- IEEE Strategic Plan Refresh

Task Forces

- Engaging Students and Young Professionals in Industry (led by MGA with Student Activities Committee, Young Professionals, and Industry Engagement Committee)
- Future of Technical and Engineering Education (led by EAB with support from across the OUs and external partners)
- Subcommittee on Enabling Strategic Investments and Public Imperatives (reporting to the IEEE Finance Committee)

2024 IEEE Ad Hoc Committees



Leadership Continuity and Efficiency

Presenting to the
BoD at June and November Meeting

Chair David Koehler

- Benchmark leadership transition activities with other leading associations and volunteer-led organizations.
- Explore means to create year-over-year continuity and enhance collaboration in the leadership of IEEE.
- Develop pilot activities to facilitate continuity and efficiency within the terms of leadership positions.
- Revisit the roles of the IEEE President & CEO and the IEEE Executive Director & COO.



Presenting to the
BoD at June and November Meeting

Policies and Procedures for Lists Related to Disciplinary Action

Chair W. Clem Karl

- Compile inventory of all the lists currently in use for tracking volunteers who have been disciplined for any misconduct.
- Gain understanding of how lists are used to vet candidates for volunteer positions, Fellows, and award recipients.
- Highlight similarities and discrepancies between OUs.
- Develop guidelines and/or proposing policies and practices to provide more clarity and consistency across the organization.

Raising the Prestige of IEEE Awards

Presenting to the
BoD at June and November Meetings

Chair K. J. Ray Liu

- Significantly increase the prize for the IEEE Medal of Honor to match that of similar top awards in other technical fields and better align with the prestige of this award.
- Explore potential funding models for an IEEE Medal of Honor Endowment for Technology Laureates.
- Work on the establishment of an IEEE Future Innovator Award with the aim of enhancing our engagement with early career professionals.

Other Key Initiatives

Catalyst: Engaging Students and Young Professionals in Industry

Presenting to the
BoD at June Meeting

Led by MGA with Student Activities Committee, Young Professionals, and Industry Engagement Committee
Chair Subodha Charles

- Identify surveys, focus groups, research, activities, and pilot programs that are underway across IEEE to find ways that we can attract and retain our younger members.
- Explore and make recommendations on the technology, products, services, and capabilities that meet the needs of those doing practical work in all aspects of the electrical, electronic, and computing fields.
- Determine new opportunities for IEEE to address any gaps.

Presenting to the
BoD at June and November Meeting

The Future of Technical and Engineering Education

Led by EAB with support from across the OUs and external partners

Chair Karen Panetta

- Identify educational resources and ongoing efforts across IEEE.
- Recommend new programs and activities for IEEE.
- Consider the potential to expand IEEE's impact through partnership with other organizations.

Enabling IEEE Strategic Investments and Public Imperatives

Reporting to the IEEE Finance Committee

Chair Joe Lillie

- The subcommittee of IEEE FinCom will examine:
 - the current financial planning and reporting process;
 - how it supports strategic investments and public imperatives, and
 - propose recommendations to improve the allocation of financial resources required to fund specific strategic initiatives

IEEE Strategic Plan Refresh

ieee.org

IEEE Strategic Plan Refresh

- ▶ IEEE is refreshing its strategic plan.
- ▶ The IEEE Strategy & Alignment Committee is partnering with EY Parthenon on this effort.
- ▶ The IEEE Board of Directors has ultimate ownership of the plan.
- ▶ Engagement includes cross OU input, stakeholder interviews, focus groups, surveys, and more.
- ▶ Once approved, roll-out will include communication with all levels.



IEEE Strategic Plan 2020-2025

OUR MISSION
We foster technological innovation and excellence for the benefit of humanity.

OUR VISION
We will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology, and of technical professionals in improving global conditions.

CORE VALUES

- Trust
- Global Community Building
- Integrity in Action
- Service to Humanity
- Partnership
- Growth & Nurturing

IEEE WILL:

- Drive global innovation through broad collaboration and the sharing of knowledge
- Enhance public understanding of engineering and technology and pursue standards for their practical application
- Be a trusted source of educational services and resources to support life-long learning
- Provide opportunities for career and professional development
- Inspire a worldwide audience by building communities that advance technical interests, inform public policy, and expand knowledge for the benefit of humanity

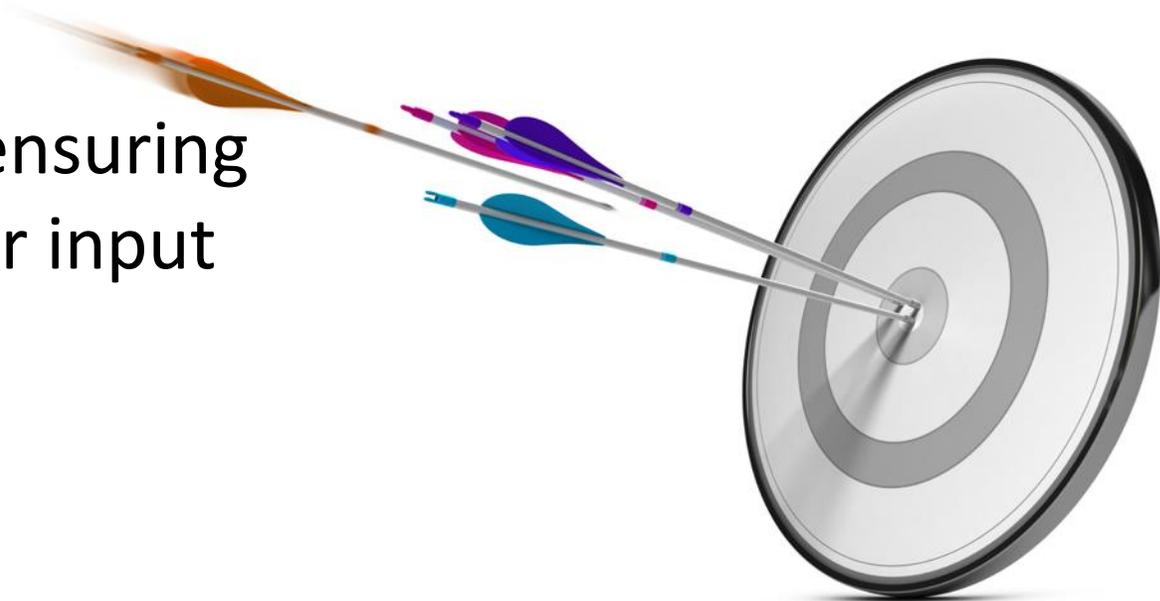
IEEE will foster a collaborative environment that is open, inclusive, and free of bias and will continue to sustain the strength, reach, and vitality of our organization for future generations.

www.ieee.org/strategic-plan
Approved by the IEEE Board of Directors, November 2015

IEEE
Advancing Technology for Humanity

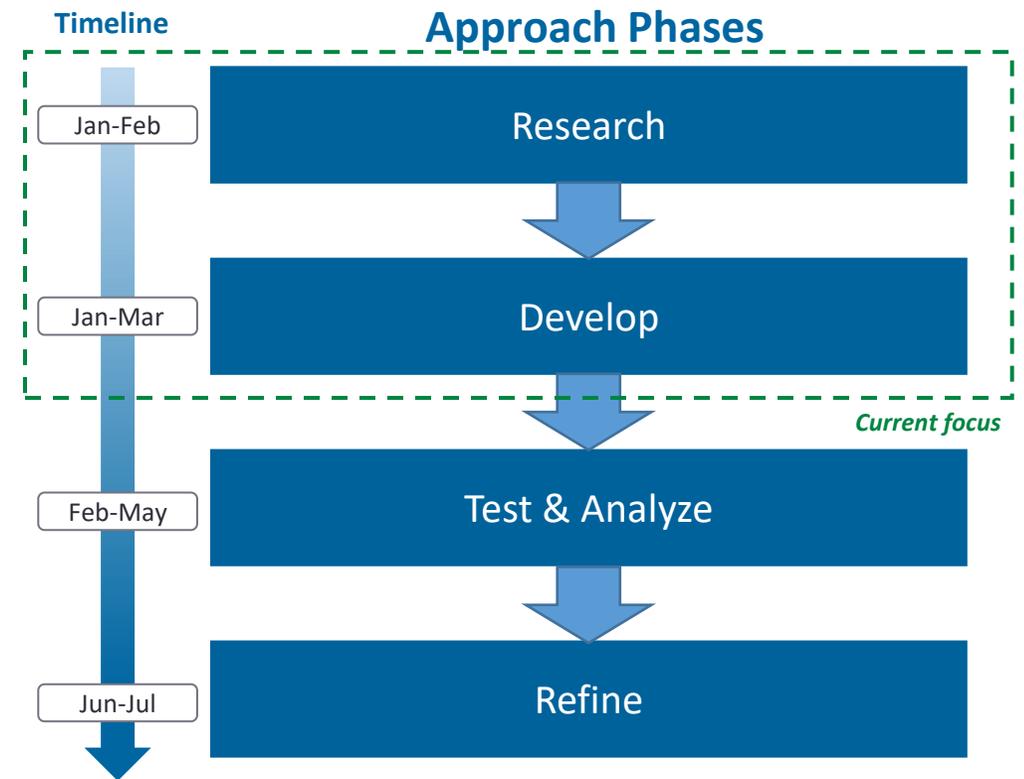
IEEE Strategic Plan Refresh Objectives

- ▶ A refresh is typically focused on updating the goals of the plan.
- ▶ The mission and vision remain constant over long periods of time.
- ▶ Typically, core values remain constant as part of the organization's identity.
- ▶ As in the previous refresh, ensuring alignment, OU, and member input will be a priority.



IEEE will work in partnership with EY-Parthenon on this strategy refresh and will be conducting the following types of activities:

- ▶ Project launch with the IEEE Board of Directors and the IEEE Strategy and Alignment Committee, followed by ongoing engagement with these groups.
- ▶ Market research into technology mega trends and IEEE's peer organizations.
- ▶ Interviews, focus groups, and surveys with key IEEE stakeholders.
- ▶ Revenue analysis on IEEE's products and services.
- ▶ Recommendation to the Board for approval.



The IEEE Promise

The IEEE brand is an authentic reflection of our unflagging dedication to:

- ▶ Maintain our leadership as a trusted source of advancements and applications of technology
- ▶ Create standards, innovative research venues, and a global technology forum
- ▶ Provide opportunities to conquer technical challenges with imagination
- ▶ Enable today's innovators to improve tomorrow's quality of life



IEEE IS RECOGNIZED AS:

- A leader in the influence of the global technology community
- A resource to the technology industry within various disciplines for the engineering community
- A supporter of innovation with new technology standards and publications that empower tomorrow's advancements

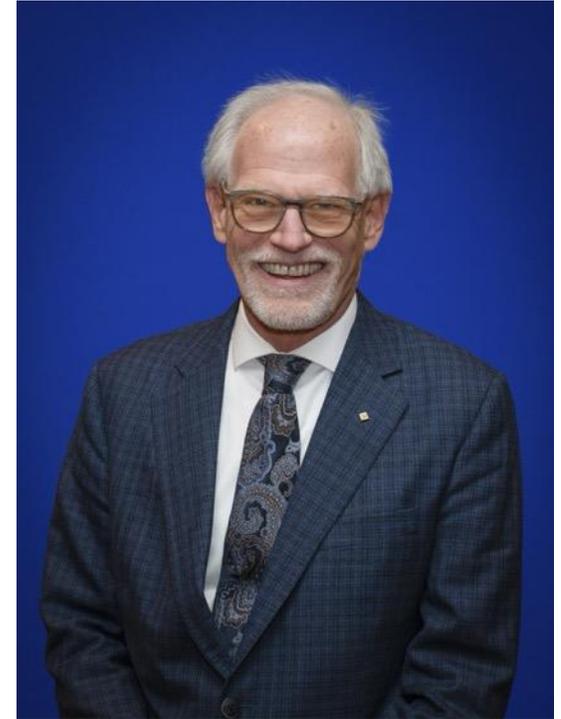
IEEE
140
1884 - 2024
YEARS

*Celebrating **140 Years**
of Advancing Technology
for Humanity*



IEEE

*Advancing Technology
for Humanity*



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[ieee.org](https://www.ieee.org)